



**Rusty McClain**  
Assistant General Superintendent



# Operational Technology

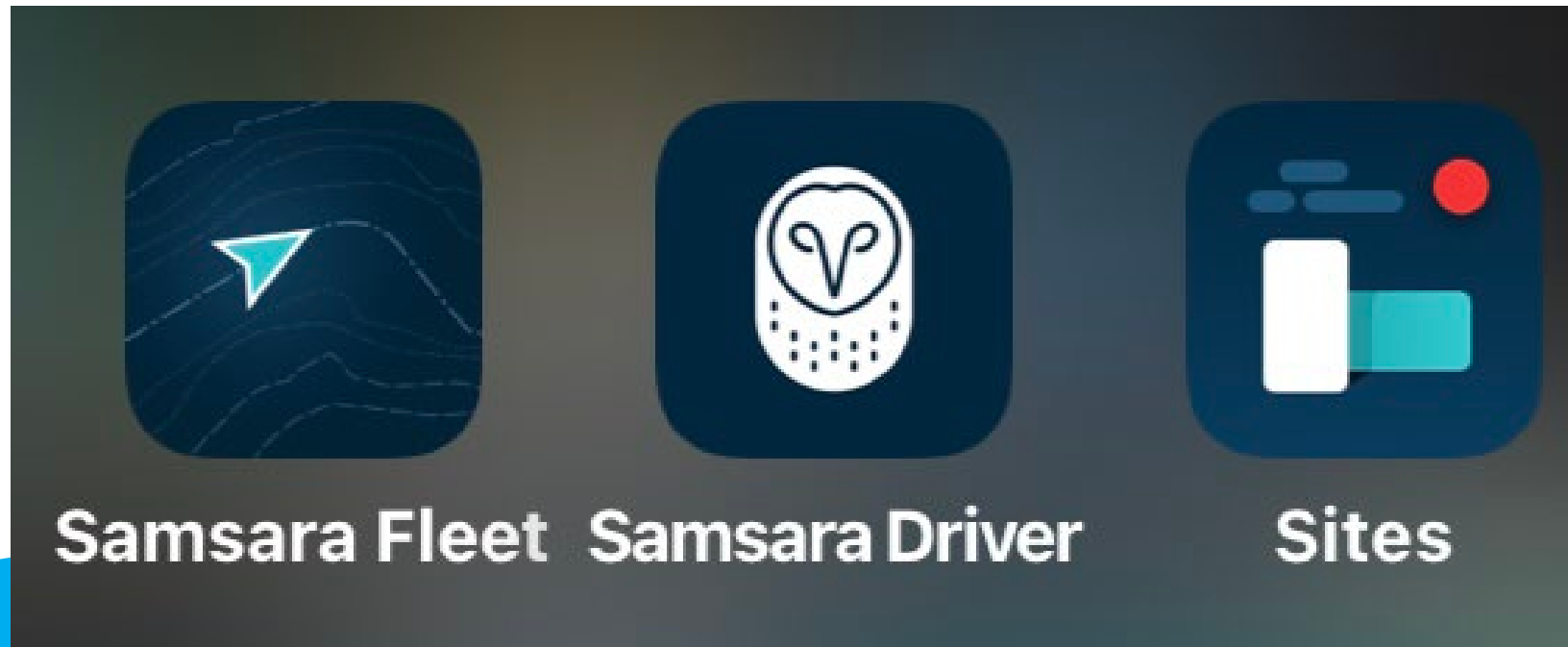


## **RMO's** (Road Maintenance Operator):

- **Daily Vehicle Inspection Reports (DVIR's)**
- **Fleet Telematics**
- **Scale Operations**

## **Superintendents:**

- **Fleet Telematics**
- **Fleet Management**
- **Site Security**





Search 121 assets

Tags More Sort

02 32 MPH

5914 East H Avenue, Charter Township of Comstock, MI, 49048  
Jim Robinson  
90% • Moving for 14m

12 21 MPH

3401 West U Avenue, Schoolcraft Township, MI, 49087  
Joe Rix  
87% • Moving for 7m

14 5 MPH

13434 South 36th Street, Climax Township, MI, 49097  
Rick McClish  
90% • Moving for 1m

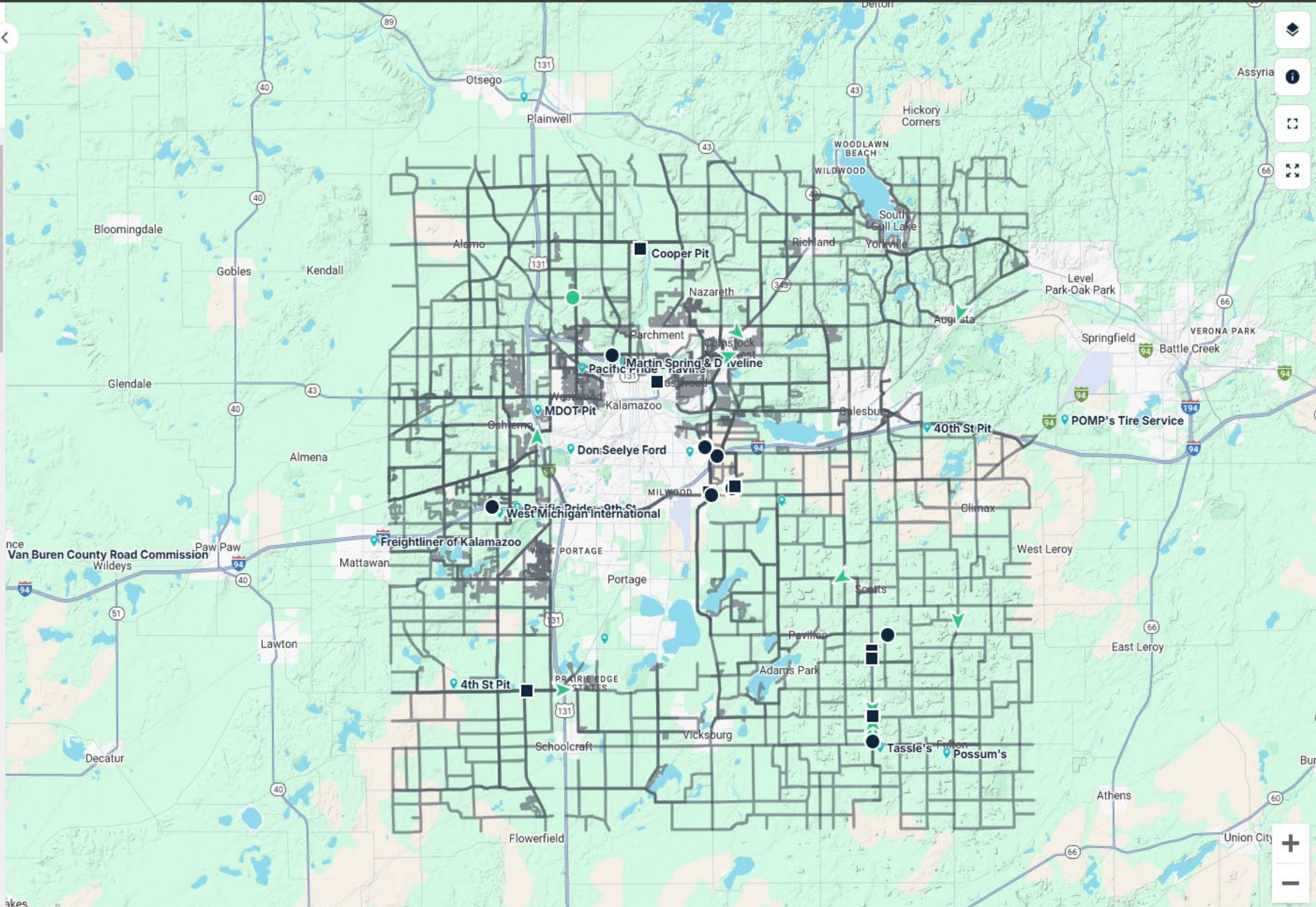
156 31 MPH

158 North Augusta Drive, Augusta, MI, 49012  
Jordan Swank  
67% • Moving for 18m

158 16 MPH

4400 Facilities  
97% • Moving for 3m

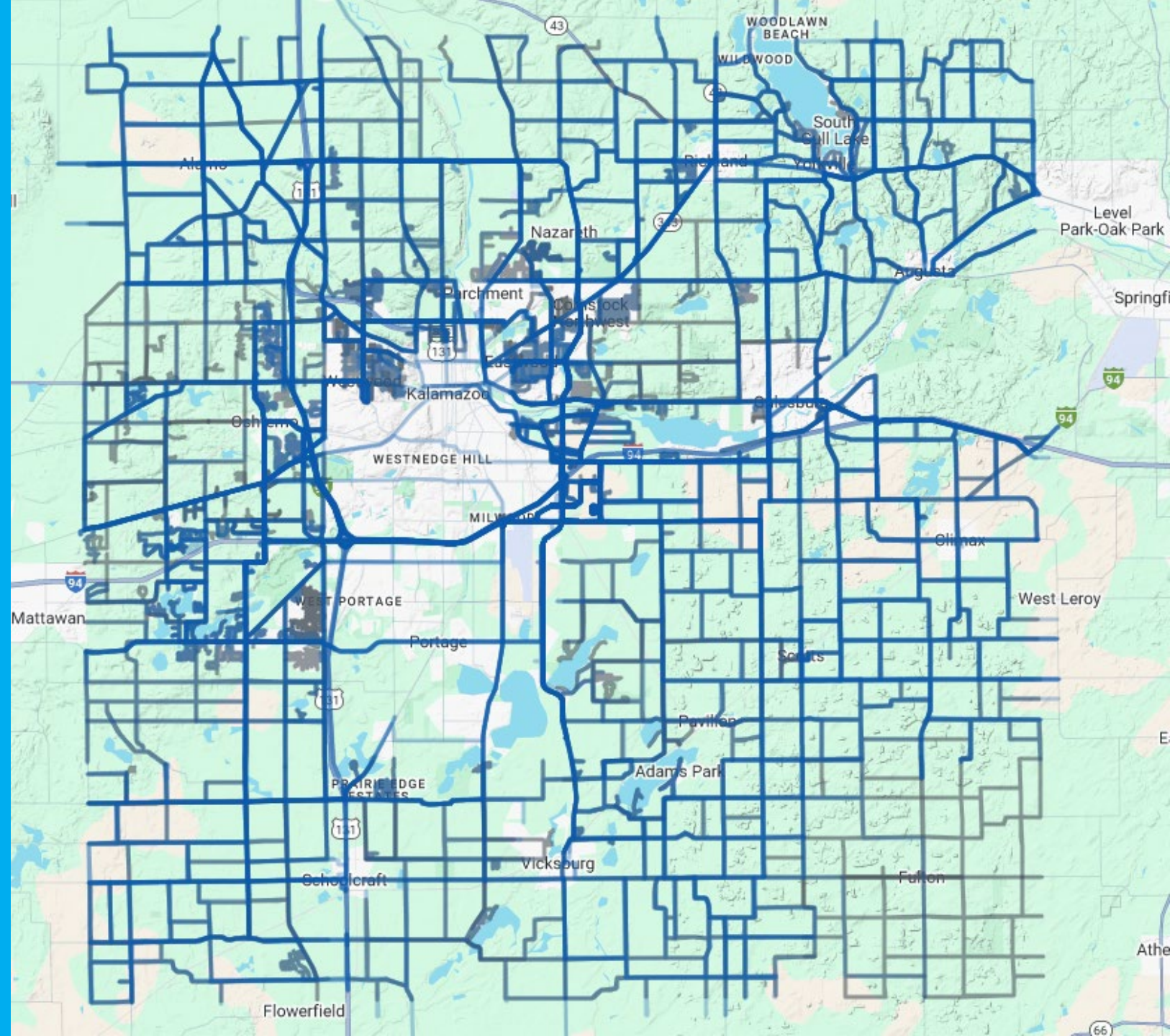
1 2 3 4 5 6 7 Next



RCKC utilizes turn-by-turn navigation for winter maintenance activities.

Overlaying these routes onto the dashboard allows Superintendents and RMO staff to see what roads/routes have been covered, or what is still needing attention.

Doing so increases response time and reduces the need for a Superintendent to dispatch operators.





**Samsara Driver**

# **Driver Vehicle Inspection Report (DVIR)**

## **User Specific**

- Each RMO has their own login credentials

12:38 PM Tue Dec 17

100%

Rusty McClain

Vehicle 83



DVIR



Documents



Vehicle



Training

WEB



Scale



All Tasks Completed



Home



Inbox



You

12:39 PM Tue Dec 17

100%



DVIRs

UPLOADED

Pre-trip

83

Dec 16, 6:50 AM

Safe >

Post-trip

83

Dec 14, 5:57 PM

Safe >

All DVIRs Loaded

Create DVIR



Home



Inbox



You



### Create DVIR

#### Vehicle

83

#### Vehicle VIN

1FT8W2BT5NEG14380

#### Location

4400 Facilities

#### License Plate

120 X 966

#### Odometer (mi)

31679

#### Choose inspection type

Required

Pre-Trip

Post-Trip

#### Take walkaround photos



Driver Side Front Passenger Side Back

#### Inspect vehicle (0/42)

Required

Next



### Create DVIR

4400 Facilities

#### License Plate

120 X 966

#### Odometer (mi)

31679

#### Choose inspection type

Required

Pre-Trip

Post-Trip

#### Take walkaround photos



Driver Side Front Passenger Side Back

#### Inspect vehicle (0/42)

Required

Any vehicle attributes not displayed are certified safe by the driver

Perform Inspection

#### Choose safety status

Required

Safe to drive

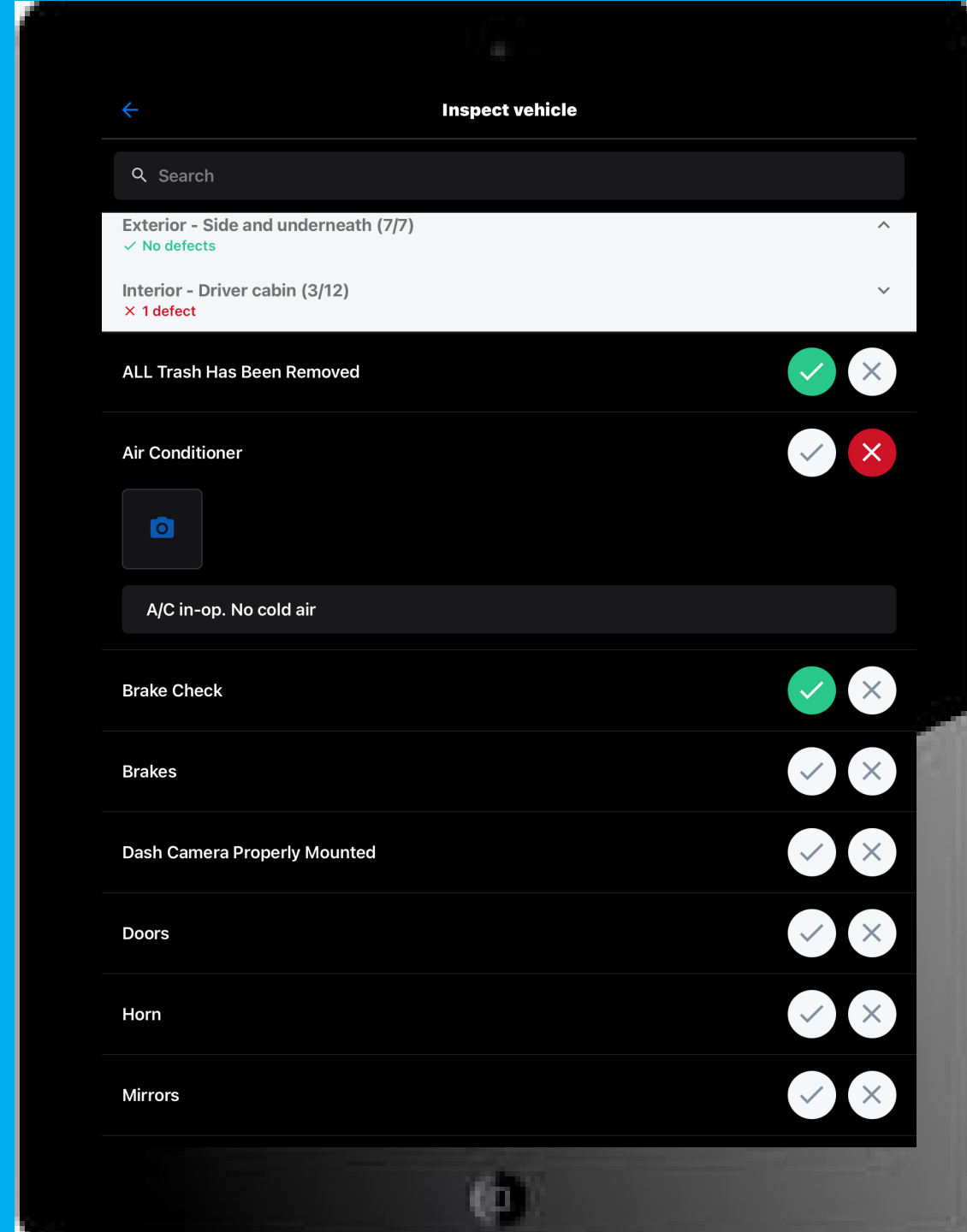
Unsafe

Next

**Defects are standard per the Department of Transportation (DOT) regulations. This list is customizable to your organization and/or specific pieces of equipment.**

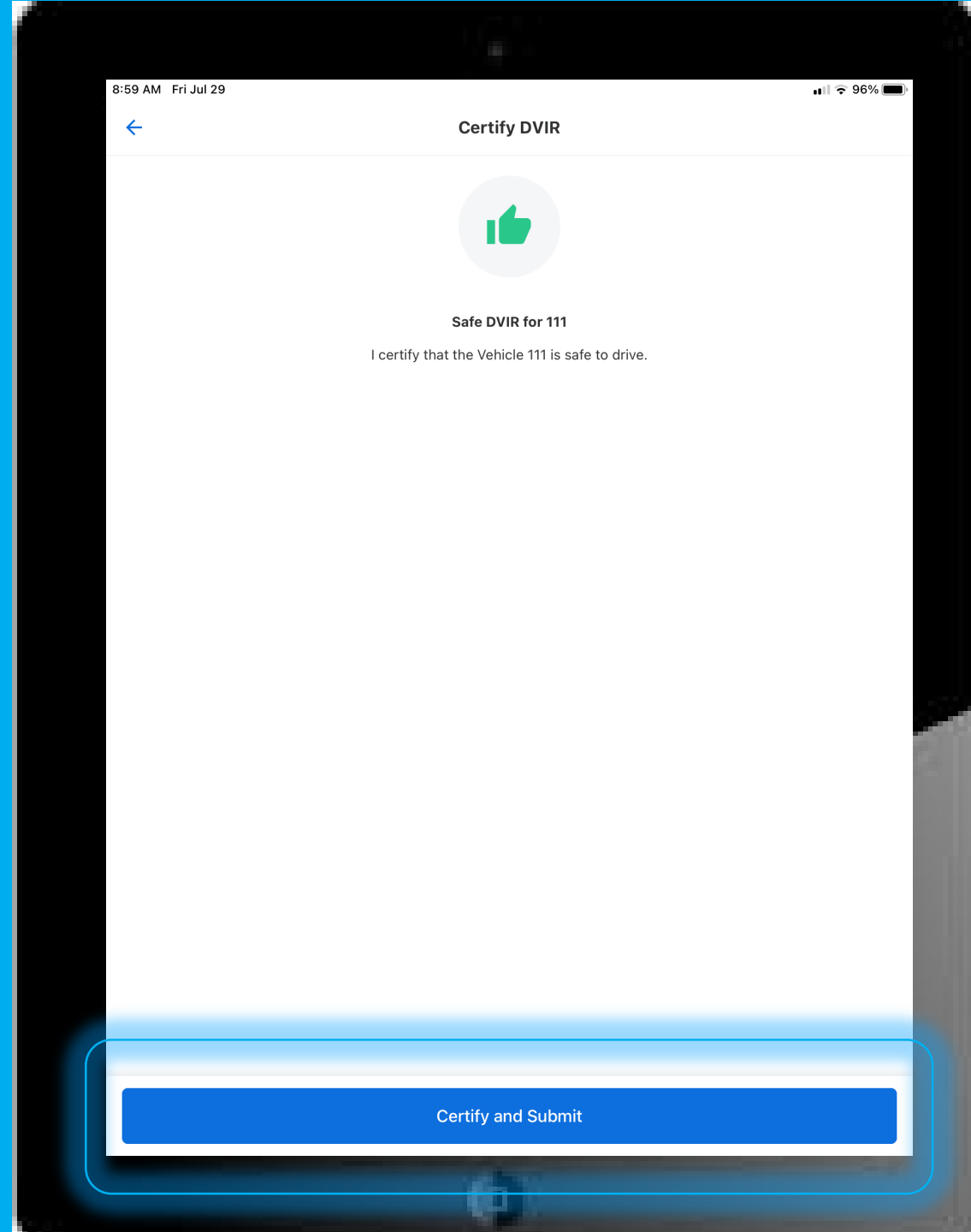
**Items with defects require explanation. This gives key insight for mechanics.**

- **RCKC requires a picture to be submitted if the operator can't articulate specifics or location.**  
i.e. “Wire hanging down” ... If a mechanic would ask: where, what does the wire look like, etc. – Take a picture.





Once the pre/post trip is completed. The operator digitally signs the inspection.

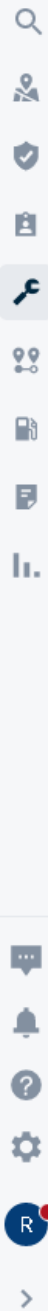




Defects DVIRs

Tags Defects

ASSET	CURRENT LOCATION	LAST DVIR STATUS	COUNT	UNRESOLVED DEFECTS
11 Vehicle	Climax Township, MI, 49088 an hour ago	SAFE	1	<b>Other</b> · Mar 29, 5:45 PM Passenger side running board is loose
> 128 Vehicle	Road Commission of Kalamazoo County a day ago	SAFE	4	<b>Exhaust</b> · Feb 9, 8:10 AM <b>Tires</b> · Feb 9, 8:10 AM <b>Lights</b> · Feb 9, 8:10 AM See more (1)
168 Vehicle	Road Commission of Kalamazoo County 6 days ago	SAFE	1	<b>Other</b> · Mar 1, 7:50 AM Tarp will not work on dump box
> 169 Vehicle	Oshtemo Township, MI, 49009 5 minutes ago	SAFE	2	<b>Other</b> · Nov 4, 7:25 AM <b>Windshield Wiper Fluid</b> · Mar 29, 8:33 AM
> 170 Vehicle	Road Commission of Kalamazoo County a day ago	SAFE	2	<b>Fluid Levels</b> · Apr 12, 7:01 AM <b>Other</b> · Apr 17, 7:23 AM
> 177 Vehicle	Road Commission of Kalamazoo County 13 days ago	SAFE	4	<b>Lights, Rear</b> · Mar 8, 5:23 PM <b>Lights</b> · Mar 15, 8:13 AM <b>Fuel Tanks</b> · Mar 21, 3:53 PM See more (1)



# Driver Vehicle Inspection Reports ☆

310 inspection reports from Mar 27 - Apr 26

+ Add Vehicle DVIR



Defects DVIRs

All 310 Safe 254 Unsafe 0 Resolved 56

< Last 30 Days > Tags Defects Type

Search inspection report

< 1 of 16 >

Type	Vehicle	Trailer	Author	Signed At	Duration	Mechanic/Agent	Defects	Status
Pre-trip	<a href="#">167</a>		Kevin Davis	Apr 26, 2023 1:54 PM	4s	-		SAFE
Pre-trip	<a href="#">169</a>		Frank Jamann	Apr 26, 2023 9:52 AM	5s	-	! 2 unresolved defects	SAFE
Pre-trip	<a href="#">206</a>		Adam Wood	Apr 26, 2023 9:04 AM	3m 4s	-	! 2 unresolved defects	SAFE
Pre-trip	<a href="#">169</a>		RJ Evans	Apr 26, 2023 9:03 AM	6s	-	! 2 unresolved defects	SAFE
Pre-trip	<a href="#">189</a>		Carson King	Apr 26, 2023 8:47 AM	4s	-	! 2 unresolved defects	SAFE
Pre-trip	<a href="#">228</a>		Rob Kern	Apr 26, 2023 7:39 AM	1m 9s	-	! 4 unresolved defects	SAFE
Pre-trip	<a href="#">200</a>		Joe Rix	Apr 26, 2023 6:57 AM	7s	-		SAFE

[< Back to DVIR list](#)

## Driver Vehicle Inspection Reports — 206 ★ SAFE

INSPECTION TYPE	ORGANIZATION NAME	AUTHOR NAME	DATE	LOCATION
Pre-trip	Road Commission of Kalamazoo County	Adam Wood	Apr 26, 9:04 AM	-
DURATION	VEHICLE NAME	ODOMETER	LICENSE PLATE	
3m 4s	<u>206</u>	1,119 mi	120 x 956	

### Resolve Defects

Check off defects below and click 'Resolve Defects' to resolve them.

#### Vehicle Defects

##### Windshield Clean, Intact

Added Apr 24, 11:43 AM

Chip in windshield and is starting to crack

Unresolved

+ Add mechanic note

##### Other

Added Apr 26, 9:01 AM

GI warning

Unresolved

+ Add mechanic note

#### Attachments



#### Attachments

None

### Activity

#### Driver signature

Apr 26, 9:04 AM

"I certify that this vehicle has been inspected in accordance with the applicable requirements."

Adam Wood

Driver / Author Signature

#### Mechanic signature

Resolve all defects in this DVIR to add a 2nd signature.

**Attachments/  
Photos allow  
Mechanics to view  
exactly what the  
RCKC Team is  
describing and  
where to look.**



< Back to DVIR list

## Driver Vehicle Inspection Reports — 200 ★ RESOLVED

INSPECTION TYPE	ORGANIZATION NAME	AUTHOR NAME	DATE	LOCATION
Pre-trip	Road Commission of Kalamazoo County	Dan Klok	Apr 20, 9:14 AM	Road Commission of Kalamazoo County
DURATION	VEHICLE NAME	ODOMETER	LICENSE PLATE	
4m 3Ts	<u>200</u>	83,951 mi	075 x 650	

### Resolve Defects

Check off defects below and click 'Resolve Defects' to resolve them.

#### Vehicle Defects

##### Other

Added Apr 20, 9:09 AM • Resolved Apr 24, 6:22 AM by Chip M Musselman

Hydraulic leak on lift box

Resolved

##### Mechanic notes

Apr 24, 6:22 AM

filled with oil and removed spinner

Edit Delete

##### Attachments

None

### Activity

#### Driver signature

Apr 20, 9:14 AM

"I certify that this vehicle has been inspected in accordance with the applicable requirements."

**Dan Klok**

Driver / Author Signature

#### Mechanic signature

Apr 24, 6:22 AM

This unsafe DVIR has been resolved and the vehicle is now safe to drive.

**Chip M Musselman**

Mechanic / Agent Signature

#### Next driver signature

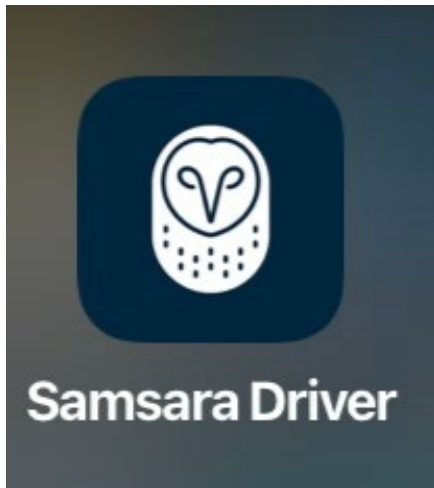
Apr 24, 6:52 AM

The driver has verified repairs have been made and the vehicle is now safe to drive.

**Carson King**

Driver / Author Signature

# Scale Operations



scale it

Jeffery Dalman



Vehicle &gt;



DVIR



Documents



Vehicle



Scale

## Scale operations working with Samsara Drivers App

- Operator selects “Scale” tile.
- This opens the web portal to the scale onsite.
- This screen is auto-filled with the operator’s credentials and vehicle.

### Kalamazoo - Login

Login



### Kalamazoo - Active Tickets

Show All Dates  Show Finished Tickets

Refresh

No Open Tickets Found

1 Scale 2 Vehicle 3 Custo... 4 Job 5 Mater... 6 Review

---

**RCKC Truck Scale** 46280 lb >

Last Updated: Invalid Date

---

Create Ticket

< Cancel

- Scale
- Vehicle
- 3** Cust...
- 4 Job
- 5 Mater...
- 6 Review

Search

- 497 - 497 - Rusty McClain** >
- ~~332 - 332 - Ricky McClish~~ >
- 440 - 440 - Joe Rix >
- 452 - 452 - Kevin Davis >
- 464 - 464 - Steve Kuilema >
- 470 - 470 - Jim Robinson >
- 479 - 479 - Brian Stauffer >
- 486 - 486 - Chip Musselman >
- 487 - 487 - Frank Jamann >
- 493 - 493 - Mike Shotwell >
- 508 - 508 - Jeff Dalman >

- Scale
- Vehicle
- Custo...
- 4** Job
- 5 Mater...
- 6 Review

Job # (optional)  
Kalamazoo Level 2

Skip

Next

< Back

- Scale
- Vehicle
- Custo...
- Job
- 5 Mater...
- 6 Review

Search

- Trap Rock CS-T (1/4")
- Trap Rock CS-2 (Treated 3/8")
- Trap Rock CS-2 (3/8")
- Trap Rock CM-16
- Sulli Hot Brine
- Sand & Salt Mix
- Sand - 2NS (Winter Sand)
- Salt
- Rip-Rap Limestone 8" - 16"
- Rip - Rap Limestone 1.5" - 2.5"
- Slag

- Scale
- Vehicle
- Custo...
- Job
- Mater...
- 6 Revi...

### Review & Submit

Vehicle	83
Customer	497 - Rusty McClain
Job #	Kalamazoo Level 2
Material	Salt
Weight	46260 lb Invalid Date

< Back

### Kalamazoo - Active Tickets

Show All Dates  Show Finished Tickets

Refresh

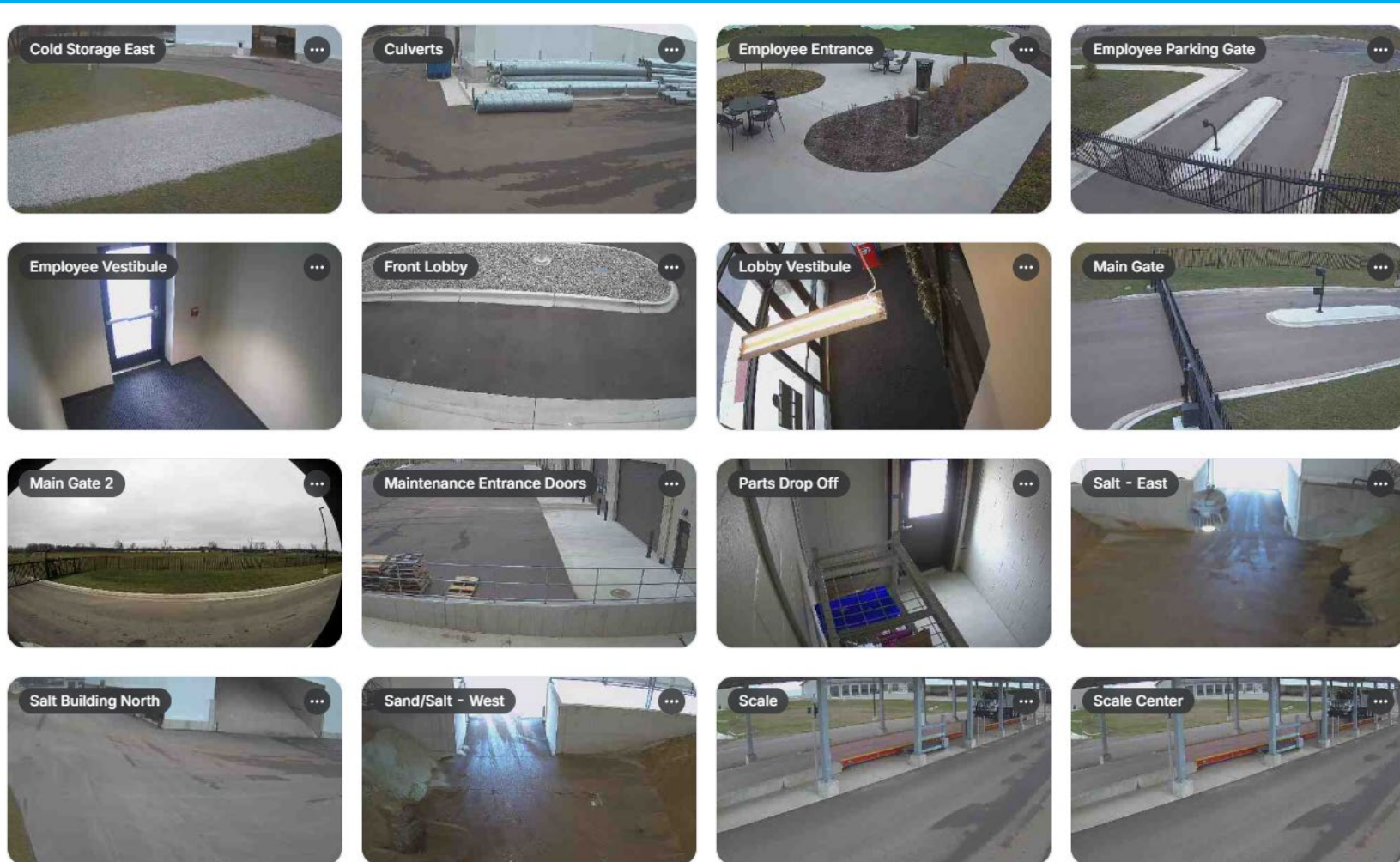
**Ticket #: 287** 12/17/2024, 1:55:57 PM >  
Vehicle: 83  
Material: Salt  
QTY: 23.12 Tons



Sites

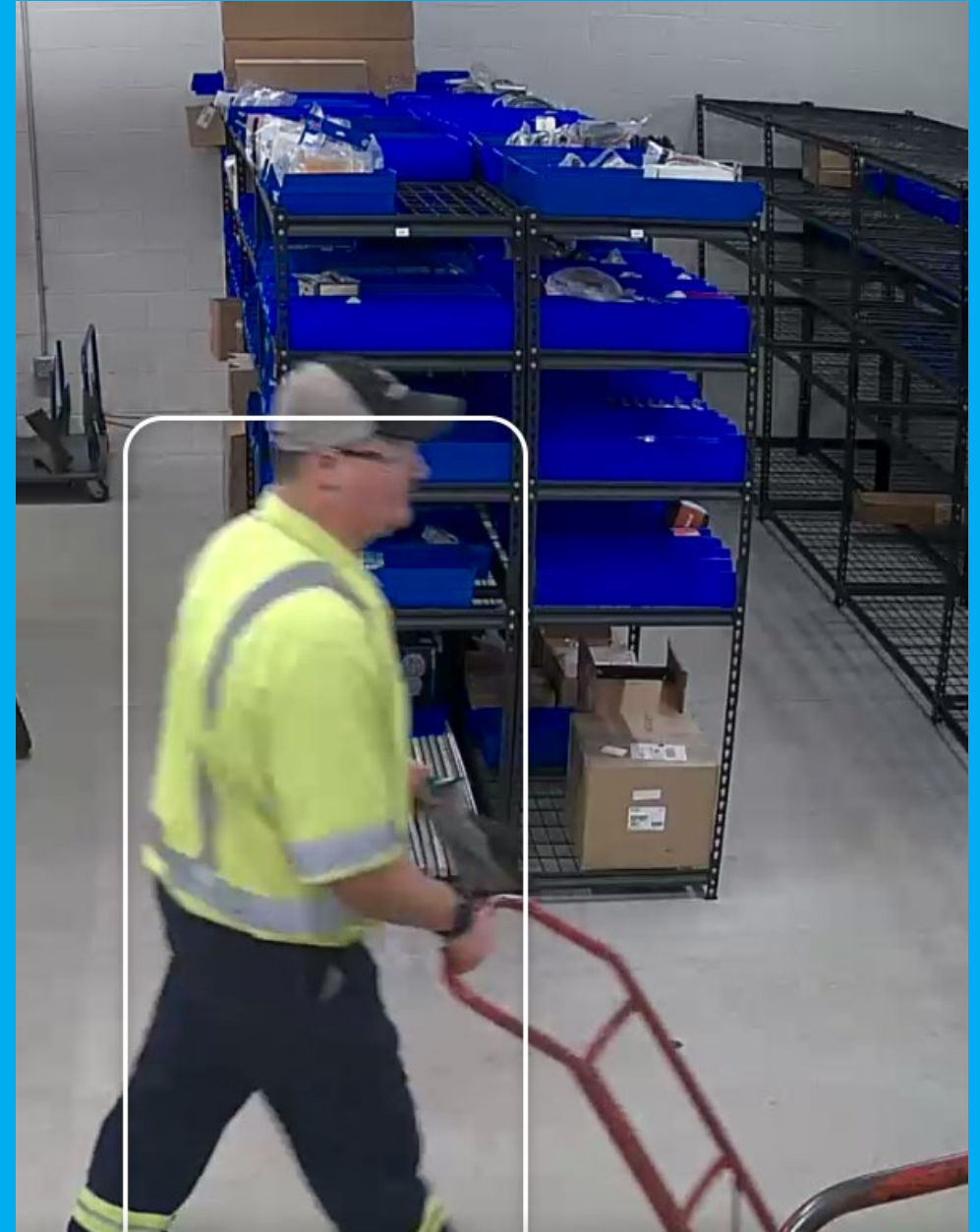
# Site Cameras

- Motion detection
- Vehicle detection
- Person detection

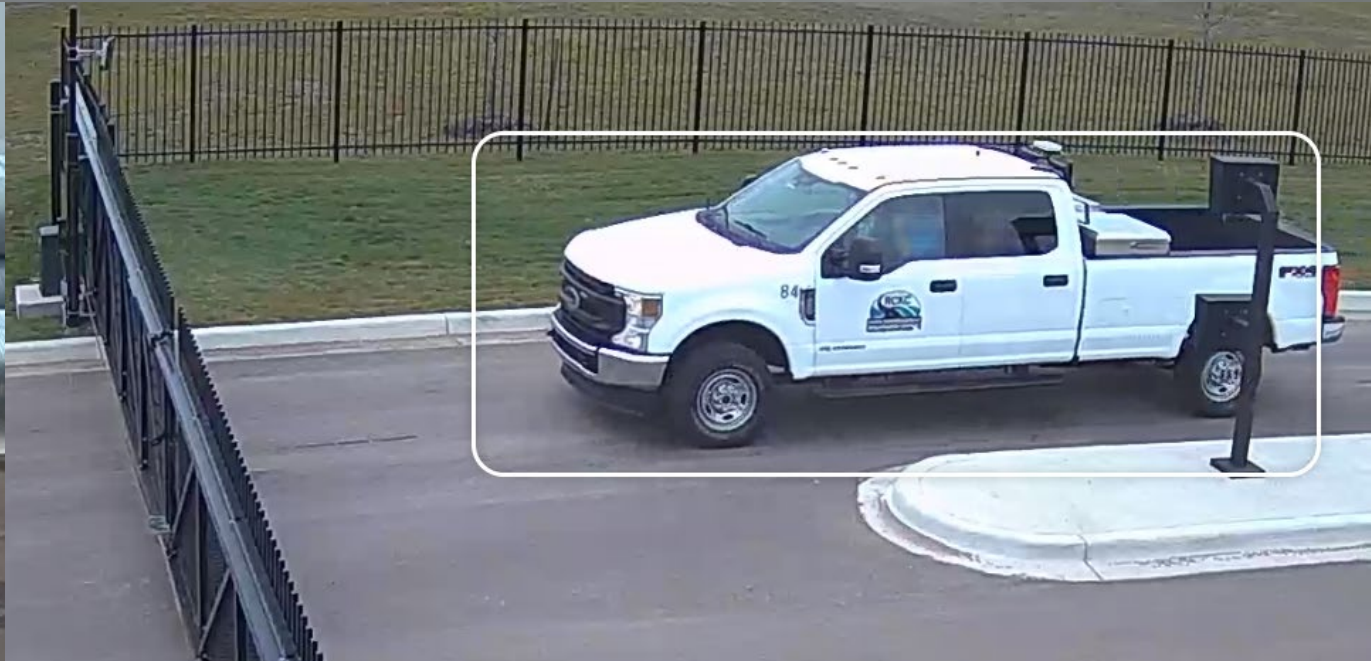


- Inventory Control
- Secured Area Monitoring

**A.I. detects “person” and will alert.**  
**- Parts delivery, notifies mechanics**  
**parts have arrived.**



- **Scale Verification**
- **Gate Monitoring**
- **Inventory Control**



# Dash Cameras





# **RCKC has utilized dash cameras to:**

- **Exonerate RCKC Team**
- **Document RCKC Team accidents**
- **Document road projects/permits**
- **Record training videos (grading, ditching, Etc.)**

**In the next few slides, we will show a few different examples.**



2022 11 01, 09:27:27 AM EDT

0  
mph  
LIMIT 45







2023 07 25, 06:37:54 AM EDT

28  
mph  
LIMIT 45







2024 01 14, 11:05:14 AM EST

36  
mph  
LIMIT 45





2024 10 08, 02:14:50 PM EDT

55  
mph  
LIMIT 55



2024 07 23, 12:53:15 PM EDT

52  
mph  
LIMIT 45



2024 06 25, 10:10:58 AM EDT

13  
mph



2024 01 15, 10:12:01 AM EST

65  
mph  
LIMIT 70



A photograph of a paved road winding through a lush green forest. The road has a yellow center line and is bordered by metal guardrails. The foreground shows dark asphalt and gravel. A central text overlay is positioned over the road.

**Thank You**  
**Questions?**